Before the
Federal Communications Commission
Washington, D.C. 20554

In the matter of	)	
	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WT Docket No. 06-150
	)	
Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules	)	WT Docket No. 06-169
	)	
Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
	)	
Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010	)	WT Docket No. 96-86

Comments of the Spectrum Coalition for Public Safety

INTRODUCTION AND EXECUTIVE SUMMARY

The Spectrum Coalition for Public Safety, in response to the Further Notice of Proposed Rulemaking ("FNPRM"), is pleased to provide the following comments regarding the 700 MHz Band spectrum allocated to public safety, the Frontline Wireless, LCC ("Frontline") proposal "Public Safety Broadband Deployment Plan," and, to the extent they impact these two issues, other matters in this FNPRM package.

We agree with the need for a national broadband network. However we strongly believe that state, regional and local governments must continue to have the right to deploy wireless networks in the 700 MHz band, and that this right must also apply to critical broadband capabilities.

We agree with the Commission's tentative conclusion to redesignate the data portions of the public safety spectrum solely for broadband use, but believe that flexibility is required in areas immediately contiguous with our national borders, especially the border with Mexico. We recommend that in border areas where full 1.25 MHz broadband channels are not available, that wideband be permitted in those smaller allocations. However, wideband should be allowed in the narrow band voice channels, and this use should be regulated by the Regional Planning Committee.

We believe that pubic safety is better served by adoption of the proposed consolidation of Narrow Band Voice (NBV) spectrum in the public safety band. In many respects this provides more options for an interoperable national public safety network of networks (e.g. more data channels, more contiguous data channels, more efficient use of precious spectrum for guard bands etc.). However, we support this reconfiguration only if funding is provided to underwrite the costs of rebanding. Further we object in the strongest terms to the proposal to dilute the billion-dollar Digital Television and Public Safety Fund for this purpose as such a purpose is contrary to the statute.

We agree with the conclusion that there is a need for a national interoperable network capability for public safety and believe that there are significant benefits to be realized with this approach. We particularly support the adoption of a technology standard which is the key to delivering national interoperability.

We propose governance that ensures the state and local governments play the primary role in the decision-making of the National Planning Committee, the body that would manage national 700 MHz broadband interoperability. As detailed previously, we do not anticipate that the Commission has the authority to license the spectrum to non-state, non-local, or non-tribal governments, but we realize the benefits of national coordination. Therefore, we propose a National Planning Committee in place of the Commission's proposed National Licensee. An three person Executive Committee, made up of an appointee of the FCC, NPSTC, and the Regional Planning Committees would provide oversight of the National Planning Committee. The RPC appointee would chair the

Executive Committee, would manage staff and sub-committees to deliver day-to-day management of the National Planning Committee, and would determine which items are put to the Executive Committee for a vote. The RPCs themselves would not be involved in day-to-day operations, but would elect the RPC appointee, the National Chair, for four years for the initial term and two years subsequently.

700 MHz Public Safety Spectrum

Broadband

The Spectrum Coalition has long advocated for the deployment of broadband public safety networks in the 700 MHz band. The propagation characteristics of the radio spectrum at 700 MHz are extremely favorable for use in building public safety networks, especially in terms of coverage. We have members who have actual experience in fielding pilot networks of this type in 700 MHz, and other members who are planning to deploy these networks. It is our right, and is directly in the public interest, for state, regional and local municipalities to be allowed to maintain our right, mandated by Congress, to build and operate broadband wireless data networks to protect the lives and property of our citizens.

We **agree with the Commission that it is not in the public interest to maintain the flexibility to deploy a mix of wideband or broadband networks** because this would significantly perpetuate "a balkanization" of public safety network deployments. But we also have concerns for Coalition members whose access to spectrum is impaired by their proximity to the Mexican border. However, RPCs should have the ability to utilize the narrowband spectrum to address any regional wideband needs.

We certainly **agree with the Commissions' conclusion that leveraging commercial technologies will reduce costs of network equipment and subscriber equipment.** This should both be in the areas of manufacturing economies as well as in areas including bulk device certification for use in roaming onto commercial networks. A National

Planning Committee can deliver greater economies of scale and assist in the enhancement of commercial solutions to suit public safety's specific needs.

We strongly believe a fundamental element in national interoperability will be **adoption of a single standard technology** for public safety broadband data – and that such technology should be one being fielded by commercial service providers. We are interested in the collective view of what national standard should be adopted for public safety broadband networks. Our analysis of what is readily available in the commercial marketplace today points to adoption of 1X-EVDO Rev A as that standard, but we believe that the standard should be able to evolve to enable public safety to leverage technological innovations while maintaining interoperability. The 1X-EVDO Rev A standard will provide public safety with multiple national back-up networks.

Band Plan Issues

We have read with interest the proposals that include provision to reconfigure the band plan for the 700 MHz public safety spectrum resulting in the consolidation of the NBV channels into the upper half of the block and moving the spectrum for data to the lower end of the block. **We agree with the tentative conclusion to reconfigure the public safety band in the manner proposed in Figure 12 of the FNPRM <u>if the current public safety occupants of the 700 MHz band are fully compensated for the move using funding outside of the $1 billion interoperability funds</u>.**

We agree that there is additional benefit in having a contiguous 5 MHz. However, we must implement a solution that will enable migration to new standards and leverage simultaneous production and test networks. As a result, a technology that operates with a minimum of 5 MHz will not meet this requirement. A 1.25 MHz channel is needed to address this requirement and the 1xEVDO standard will meet the technical requirements of public safety within this channel size. This standard will also enable aggregation of multiple channels to deliver greater throughput per user.

Transition Issues

The current band plan provides channels in both TV channel pairs, allowing public safety, in many areas, to have some usable spectrum. The Spectrum Coalition strongly urges the Commission to time any 700 MHz rebanding six to nine months after the incumbent TV broadcasters vacate the spectrum in each region to allow for interference-free operations of broadband and narrowband systems.

Funding Issues

Public safety is not funded for reconfiguration. The public safety community should not fund 700 MHz reconfiguration nor should current Federal funding, from sources such as Department of Homeland Security Grants, be leveraged. We do not believe the Deficit Reduction Act of 2005, which established the Digital Television and Public Safety Fund, was intended to be used for "re-banding" of 700 MHz. The specific cite is "…a grant program to assist public safety agencies in the acquisition of, deployment of, or training for the use of interoperable communications systems that utilize, or enable interoperability with communications systems that utilize, reallocated public safety spectrum for radio communication; and…."[1] We oppose using this funding source for to pay the costs of rebanding.

We also do not support the idea that the nationwide licensee of the commercial Upper 700 MHz spectrum block (as proposed by Frontline) should be additionally burdened with the mandatory responsibility of funding this re-banding. If a nationwide license applicant for this spectrum block can support these costs in their business model and offers such support, perhaps the Commission should entertain a bidding preference for such an offer. (This approach might also be applicable to bidders for B Block guard band licenses.)

[1] PL 109-171, Deficit Reduction Act of 2005, Title III, Section 3006

Frontline's Proposal

The Spectrum Coalition for Public Safety was formed specifically to promote allocation of additional spectrum in the 700 MHz band for public safety use. Adoption of the Frontline proposal, upon which the Commission requests comment, would designate 10 additional MHz of spectrum at least partially for public safety use. Therefore we are generally supportive of plans to designate a 10 MHz 'E Block' for mixed commercial public safety operations.

We recommend that the technology used to implement this E Block network be standardized and be the same standard as that used to implement data services in the data portion of the existing public safety band. We also agree that the details of the network would be specified in some form of network sharing agreement that would be negotiated by the "E Block" licensee and the National Planning Committee (as detailed below).

The "E Block" licensee should only be permitted to operate in the public safety spectrum with the approval of the state and local licensees. Any fees for management and operation should be included in the business case to build and run this network and should not rely on funding other than from whatever capitalization the "E Block" licensee implements and revenues realized from the operation of the "E Block" network.

The E Block licensee shall have the authority to manage and operate within the E Block consistent with standards and other requirements set by the NPC. Further, the E Block licensee may be authorized to leverage excess public safety spectrum not used by state and/or local licensees. This usage will occur only with the express written consent of the RPCs and state/local licensees.

The "E Block" licensee should be required to provide priority access to public safety users. Likewise state, regional and local operators of private public safety networks should also provide access to these networks, at zero cost, for public safety customers of the "E Block" network when those customers roam onto their networks. Finally, users of

state and local operated systems will be able to roam, at zero cost, on to the "E Block" licensee network with priority access.

We see significant value in many elements of the Frontline proposal, especially for municipalities that cannot afford to build their own networks. Nevertheless, we applaud the recognition by Frontline that some municipalities may wish to build their own networks and we strongly agree that they should be allowed to do so.

Consistent with our comments to the Ninth NPRM, the "E Block" licensee must allow public safety to operate any application it requires and use any device approved by the National Planning Committee. To this end we again applaud Front Lines recognition that the "E Block" network allow the attachment of any device to the network and permit users to access services and content provided to all public safety users at no additional charge. We agree that this unrestricted access and application policy should apply to all broadband public safety data networks. This will open a whole range of network-network interface issues (class of service and governance) which will need to be managed by the National Planning Committee and the "E Block" licensee.

Network Sharing Agreement

The Frontline view that the proposed "E Block" licensee and the National Planning Committee will have strong incentives to reach agreement is logical. The only stipulations to be entailed in the service rules governing this proposed new spectrum block should be that the "E Block" licensee should be required to:

- use the same standardized technology,
- enter into zero-cost bilateral roaming agreements, and
- operate an open network (support services, transport to applications, and equipment available on any other public safety data network).

The Commission's tentative conclusion that they will not grant a license to the bidder winning the "E Block" until a network sharing agreement is filed with the Commission is

correct, and we further agree that a requirement to be subject to binding arbitration in the event of an inability for the "E Block" licensee and the national public safety licensee is appropriate – and that the Commission itself should manage the arbitration process.

Other Issues

As detailed further in the next section, there should be special provision for the National Planning Committee to be able to review compliance of the "E Block" licensee with agreements on implementation of a common architecture in their portion of the national public safety data network. It will be in public safety's interest for the "E Block" licensee to be successful (financially viable), but our first responders must also be able to have confidence that services provided on this network are as robust and dependable as those available on private public safety networks deployed by municipalities in the existing public safety band. We propose that the National Planning Committee, with the support and cooperation of the Commission, be the watchdog to ensure compliance with the terms of the network sharing agreement brokered between these groups as a condition of the "E Block" license.

The Spectrum Coalition Proposal for Public Safety Data Spectrum Management

We recommend that the data portion of the existing public safety spectrum as well as the management for the public safety functionality in the proposed "E" block spectrum reside in a new organization comprised of experts representing the interests of the public safety personnel who are parts of state, regional, city and local governments.

Single National Organization to manage national interoperability

The Regional Planning Committees (RPC) have been wisely entrusted to manage the 700 MHz spectrum to address state, local, and regional public safety spectrum needs. It is our strong belief that these RPCs should be fully leveraged to ensure national interoperability. However, the authority of the RPCs must be coalesced into a national

organization to address national interoperability. In our model, there is a National Planning Committee (NPC) headed by the National Chair that represents the interests of the RPCs and has day-to-day operations management of the NPC. NPSTC has long been a national leader for interoperability and its membership encompasses all major national public safety functional organizations. Together with the FCC these organizations form the required elements to oversee one of our country's most important efforts; to attain National Public Safety Broadband Interoperability.

The operation of this new organization should be funded for the first two years from the proceeds of spectrum auctions required by Section 309 (j) of the Communications Act of 1934 as amended. It should be understood that this funding will require a change in the law to authorize an allocation from the monies to be returned to the treasury (creating a new fund). After the first two years of the program, funding should be added directly to the FCC's budget to cover ongoing operations.

Purpose

The primary purpose of the National Planning Committee is to coordinate the state, regional and local usage of the 700 MHz broadband public safety spectrum. When the Commission decides to proceed with the creation of a mixed public/private network in the "E Block" it would be an additional role of this organization to ensure that public safety requirements are met on the "E Block" network..

The NPC would be responsible for selecting a standard technology, use of which would be mandatory for all broadband public safety and "E Block" spectrum. To maximize the benefits from this common approach, the technology selected should be one that has been commercially adopted and nationally deployed. Use of a common broadband technology and the coordination of network elements would virtually eliminate the interoperability problems that have plagued public safety in recent years. Making the technology selection on this basis will also greatly simplify the mechanics of roaming, provide

increased redundancy in the density of coverage and maximize economies of scale to reduce prices for network equipment and end user devices.

The NPC would establish coverage and throughput requirements for networks in both the "E Block" and public safety spectrum allocations. This group would also be responsible for the negotiation of roaming agreements or agreement templates. Another important responsibility of the NPC would will be to establish and compete master equipment contracts which all state, regional and local government can leverage.

Organization

National Planning Committee

National Planning Committee (NPC) will consist of three voting members: the National Chair, a NPSTC appointee, and an FCC appointee. The National Chair will serve for two year terms with the exception of an initial four year term to facilitate the construction of the organization and national network of networks. No individual shall serve on the NPC for more than four years.

The National Chair will be elected by vote from candidates nominated from all of the Regional Planning Committees and must have significant background and experience in public safety communications. The National Chair will determine which items are put to the NPC for a vote.

The purpose of this group is to establish national public safety policies, standards, and to disseminate this information to their member organizations. This group promulgates all 700 MHz public safety broadband data interoperability decisions.

Senior Advisory Group

The Senior Advisory Group (SAG) will consist of three non-voting federal government members. The SAG will participate in meetings of the National Planning Committee. One member will represent the interests of the Federal Government from each of the following organizations:

- The Department of Homeland Security (DHS)
- The National Telecommunications and Information Agency (of the Department of Commerce) (NTIA)
- The Department of Defense (DOD)

Subcommittees

Subcommittees will be established to prepare positions, conduct research and perform day-to-day work at the direction of the National Chair. The personnel who make up these subcommittees, and the National Chair, will be full-time, funded staff and must have appropriate credentials and specific prior related work experience to be considered. Each subcommittee will report to the NPC on a regular basis.

- Program Management Office Subcommittee
- Technology Subcommittee
- Governance Subcommittee

Work of these subcommittees will include, but not be limited to:

- Programmatic oversight of the "E Block" licensee,
- Review of the state of wireless technology and recommend standards and guide standards processes that benefit public safety broadband use,
- Coordinate with commercial wireless service providers, chipset and equipment manufacturers, network and applications security organizations and applications groups.
- Testing of public safety data telecommunications equipment and devices.

- Harmonize use of the public safety data networks, and the applications and data being shared or segregated as appropriate between municipalities.
- Provide requirements of the "E Block" licensee and recommendations for public safety licensees for negotiating and managing authorization of users amongst the networks and assignment of class of service levels.

Conclusion

In summary, we believe the Commission should:

- Maintain the right for state and local governments, as mandated by Congress, to be licensed to build and operate 700 MHz broadband networks to protect the lives and property of our citizens,
- Adopt an all-broadband requirement for public safety in the data spectrum with the exception of border regions where complete 1.25 MHz channels are not possible,
- Allow wideband operations in the narrowband spectrum in border regions,
- Mandate requirement of a common standards based technology for all public safety data communications,
- Realign the existing pubic safety spectrum, consolidating NBV and separating voice and data with a 1 MHz guard band – as long as such costs are underwritten without diluting the existing sources of funding for interoperable communications,
- Adopt those elements of the Frontline proposal that would establish a new 10 MHz "E Block" of spectrum and facilitate creation of an affordable open access commercial network in that spectrum block with priority handling and features for public safety, which is also built to the common standard, and,
- Adopt the National Planning Committee structure described above to manage public safety 700 MHz broadband data interoperability.

If it is the FCC's intention to authorize a single licensee to sanction deployment of multiple networks throughout the country for public safety, it is our belief, based on our

interpretation of the law, that the FCC can only assign licenses to state and local governments.

It is our strong belief that the National Planning Committee can effectively optimize the process for the FCC to assign licenses and thereby streamline the deployment of interoperable broadband data networks in the 700 MHz band for public safety. Optimization is accomplished by standardizing the technology and requirements.